

SECRETNPIC/TSSG/DED-1623-69
23 May 1969

MEMORANDUM FOR: Chief, Development & Engineering Division, TSSG/NPIC

SUBJECT : Project Requirements Under AL-14

1. The following projects are recommended for execution under the AL-14 program with []

25X1

a. Image Enhancement Studies Using Ring Smear Techniques (PAR 251)

(1) Period of execution - 12 months. Commencing - 15 June 1969.

(2) Cost - []

25X1

(3) Description: This project is essentially a re-activation of PAR 251, cancelled in December 1968 after an evaluation which concluded that the process, as demonstrated, did not provide sufficient image improvement to proceed and, if required, could be designed and constructed in-house. The first objection was based on only one test; the second objection fails to take advantage of the expertise developed by [] Current R&D planning necessitated a re-evaluation of the project and as a result, reactivation is recommended. Successful completion of this project will provide NPIC with a tool for applied research to study the effects of enhancement on various types of operational imagery. The project provides for a unique data base or point of departure for NPIC. All new enhancement techniques could be evaluated and compared against this reference using the same imagery. At present there is no such capability. To acquire it digitally or optically would be very costly and time consuming. With this capability to produce enhanced images on a controlled basis, a variety of experiments could be performed to answer some of the critical questions concerning the value of an enhanced image to the photo interpreter; i.e., under what conditions does it help significantly? Does it enable the PI to work faster, easier, more accurately; are different degrees of enhancement critical; etc.

25X1

Note: Called [] CMD/OSA on 6 June 1969. He will call [] to initiate PAR 251 + PAR 252 as stated herein. RPB.

25X1

DDR-Dupe

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GROUP 1
Excluded from automatic
downgrading and
declassification

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b. Improvement of the Precision Enlarger Fluid Injection System (PAR 252)

(1) Period of execution - 9 months. Commencing - 15 June 1969.

(2) Cost - Study- [] Equipment- []

25X1

(3) Description: This project will result in an improved fluid injection system applicable to both the Beacon Precision Enlargers (BPE) and the 10-20-40 Precision Enlargers. Corrosion and mechanical failures in the present systems necessitate this action. Initial efforts by [] indicate a good chance of success. It is anticipated that at the conclusion of the project improved units will be furnished for the two BPE's and the three 10-20-40 Enlargers in NPIC.

25X1

c. Stereogram Maker Feasibility Study

(1) Period of performance - 9 months. Commencing - 15 June 1969.

(2) Cost - []

25X1

(3) Description: This project is a theoretical investigation into those aspects concerned with optically corrected, high resolution printing. Present operational methods depend upon the photo interpreter using high performance, high cost stereoscopes for his interpretation. It is felt that a printer which furnishes a high quality, optically corrected output could service 20-30 interpreters, thus reducing the requirement for many of the costly stereoscopes. The study phase will investigate the optics required for optimum enlargement, anamorphic correction, lamp sources, correlation circuitry, variable magnification, and like parameters. This effort is anticipated to furnish a comprehensive report which will identify those areas of potential danger in design application as well as areas of probable success.

25X1

2. Approximately [] of AL-14 contract funds are still available for allocation to study efforts in the current fiscal year. Query of the contracting officer indicates that he is very desirous of terminating this

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contract at the end of FY-69. by cable dated 9 May 1969, has agreed to the price and dates on PAR 251 and PAR 252. As a result of a meeting with them on 19 May, they are investigating the Stereogram Maker approach and will submit a PAR on that effort shortly.

25X1



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TSSG/DED/R&DB-II

Attachments: (4)

1. Letter-AL-802618-69 Dated 13 May 1969
2. Table-AL-402221-69-02 Dated 8 May 1969
3. Letter-AL-802619-69-02 Dated 12 May 1969
4. Table-AL-402222-69-002 Dated 7 May 1969

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